

REMARKS

This preliminary amendment is submitted with a request for continued examination. The Office Action rejects Claims 1-5, 9, 12-13, 17, 27-31, 35, 37, and 41 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. App. Pub. No. 2004/0201740 to Nakamura et al. ("Nakamura") in view of U.S. Pat. App. Pub. No. 2003/0060979 to Andrews et al. ("Andrews") and further in view of U.S. Pat. No. 6,741,996 to Brechner et al. ("Brechner"). Claims 10 and 15-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura in view of Andrews in view of Brechner and further in view of U.S. Pat. No. 6,484,156 to Gupta et al. ("Gupta"). Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura in view of Andrews in view of Brechner and further in view of U.S. Pat. App. Pub. No. 2001/0049691 to Asazu ("Asazu"). Claims 18, 23, 32, and 38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Andrews in view of Brechner in view of U.S. Pat. App. Pub. No. 2003/0133423 to LaDue ("LaDue") and further in view of U.S. Pat. App. Pub. No. 2004/0034655 to Tecu et al. ("Tecu"). Claims 19, 21-22, 24, and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Andrews in view of Brechner in view of LaDue in view of Tecu and further in view of U.S. Pat. No. 6,192,056 to Tsuruoka ("Tsuruoka"). Claim 25 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Andrews in view of Brechner in view of LaDue in view of Tecu in view of Tsuruoka and further in view of U.S. Pat. App. Pub. No. 2002/0031240 to Levy et al. ("Levy"). Claim 40 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura in view of Andrews in view of Brechner and further in view of U.S. Pat. No. 5,805,773 to Komentani et al. ("Komentani").

Applicants have amended several claims as set forth in the above listing of amended claims. These amendments are fully supported by the originally filed specification. In light of the subsequent remarks, Applicants respectfully submit that the claims are in condition for allowance.

The Rejection of Independent Claims 1 and 35 under §103(a) is Overcome

The Office Action asserts that Claims 1 and 35 are unpatentable over the combination of Nakamura, Andrews, and Brechner. Independent Claim 1 is directed to a method comprising obtaining user provided information in consequence to any user operation on a mobile terminal

device. The method further comprises obtaining context information associated with said user provided information. The context information is related to at least one current condition of the mobile terminal device at the time of said any user operation and includes calendar information from an electronic calendar implemented at said mobile terminal device. The method additionally comprises obtaining a first time information in accordance with said user provided information. The method also comprises obtaining one or more calendar entries included in said calendar information. Each calendar entry comprises a second time information with a start time and an end time. The method further comprises comparing said first time information with each of said second time information to identify matching calendar entries by assigning a membership function to each of said second time information and deriving a membership grade value from each of said membership functions in accordance with said first period of time. Each membership function comprises a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry and becomes zero value at a predefined moment in time after said end time of said respective calendar entry. The membership function defines an extended timeframe for each calendar entry. The method also comprises obtaining meta-information from each matching calendar entry of said one or more obtained calendar entries. The method additionally comprises assigning meta-information obtained from said context information and said membership grade value to said user provided information. The membership grade value defines a measure which allows to estimate a reliability of a timely relatedness for retrieval. The method further comprises directing storage of said user provided information and said meta-information in a history storage in order to establish an information history functionality. Claim 35 includes substantially similar recitations insofar as this discussion is concerned, and is directed to an apparatus.

Claims 1 and 35 accordingly each recite the features of assigning a membership function to each of said second time information and deriving a membership grade value from each of said membership functions in accordance with said first period of time. Each membership function is recited to comprise a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry and becomes zero value at a predefined moment in time after said end time of said respective calendar entry. In this regard, the membership function is recited in Claims 1 and 35 to define an extended timeframe for each calendar entry.

The membership function is provided in order to identify the matching calendar entries. As recited in Claims 1 and 35, the membership function rises from zero value at a predetermined moment in time before a start time of each calendar entry and the membership function becomes zero value at a predefined moment in time after said end time of each calendar entry. This means that the second time information associated with the calendar entries is provided with a pre- and post-period of time, whereas the first time information associated with the user provided information remains unmodified. The membership function defines an extended timeframe for each calendar entry. See published application paragraphs [0175]-[0176]. Accordingly, the membership function comprises a function of time. A plot diagram of an example membership function is illustrated in FIG. 3b.

The first time information [associated with the user provided information] is compared with each of the second time information [associated with the respective calendar entry] in that the aforementioned membership function is assigned to each of the second time information and a membership grade value is derived from each of the membership functions in accordance with the first period of time. See published application paragraphs [0180]; [0185] and [0191]. Thereby a membership grade value is obtained, which provides a reliable and analytic measure of the time/temporal relatedness between the first time information (of the user provided information) in relationship to the second time information (of the respective calendar entry). See published application paragraphs [0187] and [0197].

This means it is not only determined whether the time information associated with the user provided information falls within the second time information associated with one of the calendar entries but also whether the time information associated with the user provided information is close in time to some extent to the second time information associated with one of

the calendar entries and an reliability value, i.e. the membership grade value, is provided which reflect a measure of the closeness in time.

The Office Action relies on the newly cited Nakamura as teaching the features of assigning a membership function to each of said second time information and deriving a membership grade value from each of said membership functions in accordance with said first period of time. In particular, the Office Action cites to paragraphs 33, 34, and 40-51 of Nakamura. However, in stark contrast to the features recited in Claims 1 and 35, Nakamura merely teaches comparing metadata with dates corresponding to events specified in the calendar. Accordingly, Nakamura does not teach or suggest assigning a membership function to second time information that comprises a calendar entry such that the membership function defines a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry and becomes zero value at a predefined moment in time after said end time of said respective calendar entry. In this regard, Nakamura neither teaches nor suggest assignment of any function in time (which Applicants again refer the Examiner to the example of Fig. 3b of Applicants' application) to a calendar entry, let alone assignment a function defining an extended timeframe for a calendar entry. Nakamura teaches only examining the time window scheduled on the calendar.

Applicants further make special note that the Office Action submits that paragraphs 40-51 of Nakamura teach the membership function comprising a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry, and becomes zero value at a predefined moment in time after said time of said respective calendar entry, wherein the membership function defines an extended timeframe for each calendar entry. Paragraphs 40-51, even when taken at their broadest, merely describe example storage of metadata with images. This cited portion does not even remotely suggest a membership function, let alone a membership function comprising a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry, and becomes zero value at a predefined moment in time after said time of said respective calendar entry, wherein the membership function defines an extended timeframe for each calendar entry.

Paragraph 34 of Nakamura, which is relied on in the Office Action as teaching deriving a membership grade value from each of said membership functions merely teaches that where two events on a calendar are scheduled for the same date and time but pertain to different locations, location meta data is compared to the location information in the calendar entries to determine a storage location for the image. This portion clearly does not teach or suggest deriving a membership grade value.

For at least the foregoing reasons, Applicants respectfully submit that Nakamura does not teach or suggest comparing said first time information with each of said second time information to identify matching calendar entries by assigning a membership function to each of said second time information and deriving a membership grade value from each of said membership functions in accordance with said first period of time, wherein each membership function comprises a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry and becomes zero value at a predefined moment in time after said end time of said respective calendar entry, wherein membership function defines an extended timeframe for each calendar entry, as recited by Claim 1 and similarly recited by Claim 35. Moreover, none of the other cited references, taken alone or in combination with Nakamura cure the deficiencies of Nakamura.

Since none of the cited references, taken alone or in combination, teach or suggest each of the features of independent Claims 1 and 35, Applicants respectfully submit that Claims 1 and 35 are patentably distinct from the cited references such that the rejection is overcome. Applicants further respectfully submit that Claims 1 and 35 are in condition for allowance.

The Rejection of Independent Claims 18 and 38 under §103(a) is Overcome

The Office Action asserts that Claims 18 and 38 are unpatentable over the combination of Andrews, Brechner, LaDue, and Tecu. Independent Claim 18 is directed to a method comprising obtaining user provided information in consequence to any user operation on a mobile terminal device. The user provided information includes user provided audio information. The method further comprises obtaining context information associated with the user provided information. The context information is related to at least one current condition of the mobile terminal device

at the time of the any user operation. The method also comprises providing a code basis representing a plurality of coding symbols. The code basis comprises a pre-defined number of pre-defined frequencies. A plurality of coding symbols represents a character and symbol code table employable for coding the meta-information. The code basis is defined within a first frequency range, which is one frequency range of a plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information. The method additionally comprises repeating said code basis within at least one further frequency range out of said plurality of frequency ranges. The method further comprises coding said meta-information in accordance with said code basis defined within said first frequency range and repeated within said at least one further frequency range to obtain redundancy. The method also comprises combining said user provided audio information and said coded meta-information by embedding said coded meta-information into said user provided audio information. The method additionally comprises directing storage of said user provided information with said coded meta-information in a history storage in order to establish an information history functionality. The meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matching to said request information. Claim 38 is directed to an apparatus and includes substantially similar recitations insofar as this discussion is concerned.

Accordingly, Claims 18 and 38 both recite the feature of repeating the code basis within at least one further frequency range out of said plurality of frequency ranges. The Office Action asserts that LaDue teaches this feature and, in particular, cites to paragraph 144 of LaDue. However, this portion of LaDue merely discloses that octave pulses are transported through networks having E1/T1 repeaters (i.e., signal repeaters). Clearly, this portion of LaDue does not teach or suggest repeating the code basis within at least one further frequency range out of said plurality of frequency ranges, as recited by Claims 18 and 38. Moreover, no other portion of LaDue teaches or suggests this feature.

Applicants accordingly, respectfully submit that LaDue does not teach or suggest repeating the code basis within at least one further frequency range out of said plurality of

frequency ranges, as recited by Claims 18 and 38. Applicants further submit that none of the other cited references, taken alone or in combination with LaDue cures the deficiencies of LaDue. Applicants therefore respectfully submit that Claims 18 and 38 are patentably distinct from the cited references, taken alone or in combination, such that the rejection is overcome and Claims 18 and 38 are in condition for allowance.

The Rejection of the Dependent Claims is Overcome

Because each of the dependent claims includes each of the recitations of a respective independent base claim, Applicants further submit that the dependent claims are patentably distinguishable from the cited references, taken alone or in combination, for at least those reasons discussed above. Accordingly, applicants respectfully submit that the rejections of the dependent claims are overcome and the dependent claims are in condition for allowance.

In addition to the foregoing reasons, Applicants respectfully submit that Claim 40 is further patentably distinct from the cited references, taken alone or in combination. Claim 40 recites that deriving the membership grade value further comprises at least one of averaging said membership function over said first period of time, determining a maximum of said membership function over said first period of time, and determining a minimum of said membership function over said first period of time. The Office Action relies on Figure 7 and Column 5, Lines 56-62 of Kometani as teaching this feature. However, this portion of Kometani merely teaches that “the membership functions...are respectively weighted by the condition part membership grades 0.4, 0.9, and 0.3 into the curves of the fuzz-rule membership grades....” Thus, at most, Kometani teaches weighting a function. However, weighting a function does not teach or suggest any of averaging said membership function over said first period of time, determining a maximum of said membership function over said first period of time, and determining a minimum of said membership function over said first period of time, as recited by Claim 40. Moreover, none of the other cited references, taken alone or in combination with Kometani cures the deficiencies of Kometani.

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CONCLUSION

In view of the amended claims and remarks presented above, it is respectfully submitted that all of the present claims of the present application are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicants' undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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